Oracle® Fusion Middleware

Installing and Configuring Oracle WebLogic Server and Coherence

14*c* (14.1.2.0.0)
F84139-01
December 2024

Oracle Fusion Middleware Installing and Configuring Oracle WebLogic Server and Coherence, 14*c* (14.1.2.0.0)

F84139-01

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Contents

Preface

This document describes how to install and configure Oracle WebLogic Server and Coherence.

Audience

This document is intended for system administrators or application developers who are installing WebLogic Server. It is assumed that readers are familiar with Web technologies and have a general understanding of Windows and UNIX platforms.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

Related Documents

Refer to the Oracle Fusion Middleware Library for additional information.

- For WebLogic Server information, see Oracle WebLogic Server Documentation.
- For installation information, see Fusion Middleware Installation Documentation.
- For upgrade information, see Fusion Middleware Upgrade Documentation.
- For administration-related information, see Fusion Middleware Administration Documentation.
- For release-related information, see Fusion Middleware Release Notes.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

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Planning the Oracle WebLogic Server Installation

This section prepares you to install Oracle WebLogic Server and Coherence. Review this section thoroughly to ensure that you do not encounter any problems during or after installation and domain configuration.

Using this Document

There are certain scenarios that you want to use this guide for, and other sources of information.

This section contains the following topics:

Using the Standard Installation Topology as a Starting Point

This guide helps you create the standard installation topology for Oracle WebLogic Server and Coherence. You can extend this topology to make it highly available and secure so that it is suitable for a production system.

The standard installation topology represents a *sample* topology for this product; it is not the only topology that Oracle supports. See Understanding the Standard Installation Topology in *Planning an Installation of Oracle Fusion Middleware*.

Using this Document in an Upgrade Scenario

If you are installing Oracle WebLogic Server and Coherence as part of an upgrade procedure, follow procedures in this guide to install the software, but do *not* run the Configuration Wizard to create a WebLogic domain.

After you install the software, go to Overview of the Upgrade Process in *Upgrading Oracle WebLogic Server*.

Using this Document to Extend a Domain

Procedures in this document describe how to create a new domain; you can use the same procedures to extend an existing domain.

If you do this, be sure to read Installing Multiple Products in the Same Domain in *Planning an Installation of Oracle Fusion Middleware* for important information.

If you are creating a new domain but your needs do not match the steps in a procedure, be sure to make your selections accordingly and see the supporting documentation for more details.

Oracle WebLogic Server Installers

This guide describes how to use the Oracle WebLogic Server and Coherence distribution to install and configure runtime development, test, or production environments for Oracle WebLogic Server.

To set up a development environment, see:

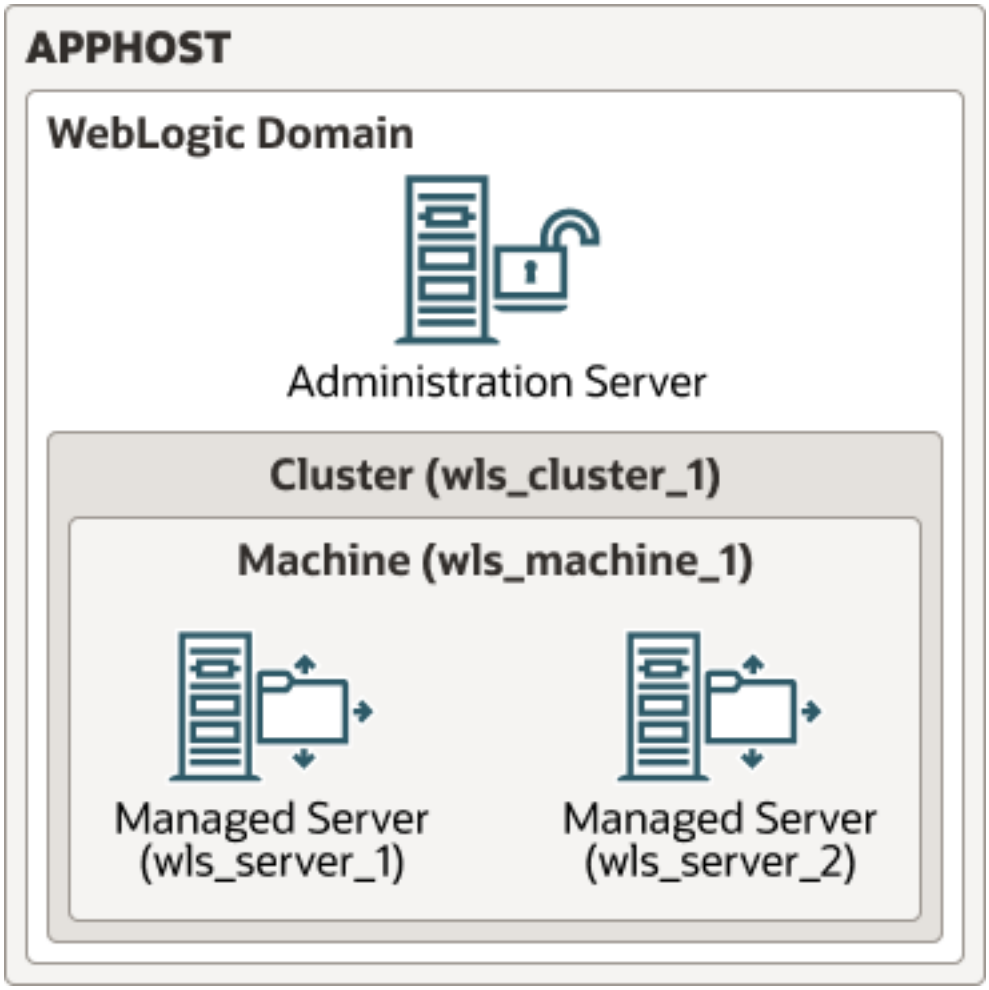
- Obtaining the Oracle WebLogic Server and Coherence Distribution to find the installers.
- Overview of WebLogic Server Application Development in *Developing Applications for Oracle WebLogic Server* for a complete list of what to keep in mind when you set up a development environment for Oracle WebLogic Server.
- Installing the Oracle JDeveloper Software in *Oracle Fusion Middleware Installing JDeveloper* to install Oracle JDeveloper, an integrated development environment (IDE) for building applications using the latest Java, XML, Web services, and SQL standards.

About the WebLogic Server and Coherence Standard Installation Topology

The standard installation topology has a standard WebLogic Server domain.

The following figure shows the standard installation topology for Oracle WebLogic Server and Coherence:

Figure 1-1 Oracle WebLogic Server and Coherence Topology



This topology has a standard WebLogic Server domain that contains two Managed Servers in a cluster and an Administration Server, all configured on one host.

See these topics:

WebLogic Server and Coherence Standard Installation Topology Elements

This section describes the standard installation topology elements.

See Roadmap for Installing and Configuring the Installation Topology for a roadmap that describes steps to create this topology.

Table 1-1 Oracle WebLogic Server and Coherence Standard Installation Topology Elements

Element	Description and Links to Additional Documentation
APPHOST	Standard term in Oracle documentation for the machine that hosts the application tier.
WebLogic Domain	Logically related group of Java components. In this case, the Administration Server, Managed Servers, and other related software components. See What is an Oracle WebLogic Server Domain? in *Understanding Oracle Fusion Middleware*.

Table 1-1 (Cont.) Oracle WebLogic Server and Coherence Standard Installation Topology Elements

Element	Description and Links to Additional Documentation
Administration Server	Domain central control entity. Maintains domain configuration objects and distributes configuration changes to Managed Servers. See What is the Administration Server in *Understanding Oracle Fusion Middleware*.
Cluster	A collection of multiple WebLogic Server instances running simultaneously and working together. See Understanding Managed Servers and Managed Server Clusters in *Understanding Oracle Fusion Middleware*.
Machine	Logical representation of the computer that hosts one or more WebLogic Server instances (servers). Machines are also the logical glue between Managed Servers and Node Manager; to start or stop a Managed Server with Node Manager, the Managed Server must be associated with a machine.
Managed Server	Host for your applications, application components, Web services, and their associated resources. See Understanding Managed Servers and Managed Server Clusters in *Understanding Oracle Fusion Middleware*.

Running the Installer in Silent Mode

You can install using the `-silent` flag on the command line when you start the installer.

See the following topics in *Installing Software with the Oracle Universal Installer* for details on silent mode and the steps to run it.

- Understanding Silent Installation
- Understanding Response Files
- Running the Oracle Universal Installer in Silent Mode
- Running the Oracle Universal Installer for Silent Deinstallation

Roadmap for Installing and Configuring the Installation Topology

This document has all the procedures you need to install and configure WebLogic Server. Within the procedures, this document refers to additional information you can use if you want to create a modified version of this topology.

The following table shows steps required to install and configure Oracle WebLogic Server:

Table 1-2 Oracle WebLogic Server and Coherence Installation Procedure

Task	Description	Documentation
Verify your system environment	Before starting the installation, verify that your system meets minimum system and network requirements.	Roadmap for Verifying Your System Environment
Obtain the appropriate distribution	To create the topology this section describes, obtain the Oracle WebLogic Server and Coherence distribution.	Obtaining the Oracle WebLogic Server and Coherence Distribution.

Table 1-2 (Cont.) Oracle WebLogic Server and Coherence Installation Procedure

Task	Description	Documentation
Determine your installation directories	Verify that the installer can create or access installer directories that it needs to create. Also, verify that the directories exist on systems that meet the minimum requirements.	What are the Key Oracle Fusion Middleware Directories? in *Understanding Oracle Fusion Middleware*.
Install the software	Run the installation program to install the software.	Installing the Oracle WebLogic Server and Coherence Software
Create a WebLogic domain	Use the Configuration Wizard to create a WebLogic domain.	Creating and Configuring the WebLogic Domain
Perform post-installation tasks	Start to manage components in the domain or continue to modify your environment for high availability.	Next Steps After Configuring the WebLogic Server Domain

Roadmap for Verifying Your System Environment

This topic has important information that you must read and understand before you begin installation and configuration steps. It identifies important tasks and checks that verify your environment is properly prepared to install and configure Oracle WebLogic Server and Coherence.

Table 1-3 Roadmap to Verify Your System Environment

Task	Description	Documentation
Verify certification and system requirements.	Verify that your operating system is certified and properly configured for WebLogic Server and Coherence installation and configuration.	See Verifying Certification, System Requirements and Interoperability in *Planning an Installation of Oracle Fusion Middleware*.
Identify a proper installation user.	Verify that the installation user has the proper permissions to install and configure the software.	See Selecting an Installation User in *Planning an Installation of Oracle Fusion Middleware*.
Select the installation and configuration directories on your system.	Verify that you can create the necessary directories for installation and configuration, according to the recommended directory structure.	See Selecting Directories for Installation and Configuration in *Planning an Installation of Oracle Fusion Middleware*.

Table 1-3 (Cont.) Roadmap to Verify Your System Environment

Task	Description	Documentation
Install a certified JDK.	The installation program for the distribution requires that your system have a certified JDK.	See Installing a JDK in *Planning an Installation of Oracle Fusion Middleware*.

> **Note:**
>
> Oracle Fusion Middleware 14c (14.1.2.0.0) supports JDK version 17.0 or later, and JDK 21.0 or later.

Obtaining the Oracle WebLogic Server and Coherence Distribution

To download Oracle WebLogic Server and Coherence software for development or evaluation, go to the Software Downloads page.

> **Note:**
>
> As of Oracle WebLogic Server 14*c* (14.1.2.0.0), the WebLogic Server and Coherence examples are provided in a separate examples JAR file, `fmw_14.1.2.0.0_wls_examples_generic.jar`, which you install in the same `ORACLE_HOME` as your WebLogic Server installation. For more information about obtaining and installing WebLogic Server see Installing the WebLogic Server Code Examples .

To obtain Oracle WebLogic Server and Coherence, follow these steps:

1. Download the generic installer `fmw_14.1.2.0.0_wls_Disk1_1of1.zip`.
2. (Optional) Download the WebLogic Server and Coherence examples installer `fmw_14.1.2.0.0_wls_examples_generic.jar`.
3. Extract the contents onto your system.

   The extracted files run the product installer and install the software onto your system (Installing the Oracle WebLogic Server and Coherence Software).

Verifying Digital Signature and Integrity of Installation Archive Files

Oracle digitally signs the installation archive files with Oracle certificates to ensure the integrity of the packages before you deploy them in your environments.

Use the Java utility `jarsigner` to verify the integrity of your installation archive files. You can verify the integrity of the installation archive files before you extract the installation files.

Quick Verification

To quickly verify the installation archive files, use the `jarsigner` command with the `-verify` option:

1. Go to the directory where you have downloaded the installation archive files.
2. Run this command to check your installation archive file:

   ```
   jarsigner -verify installation_archive_file
   ```

   For example, to check the Oracle Fusion Middleware Infrastructure archive:

   ```
   jarsigner -verify fmw_14.1.2.0.0_infrastructure.jar


   jar verified.
   ```

Detailed Certificate Information

If you want detailed certificate information, then use the `-verbose:summary` and `-certs` along with the `-verify` option.

1. Go to the directory where you have downloaded the installation archive files.
2. Run this command to check your installation archive file:

   ```
   jarsigner -verify -verbose:summary -certs installation_archive_file
   ```

   For example, to check the Oracle Fusion Middleware Infrastructure image:

   ```
   jarsigner -verify -verbose:summary -certs fmw_14.1.2.0.0_infrastructure.jar
   ```

   The output is similar to the following:

   ```
   2237119 Fri Dec 6 07:02:30 UTC 2023 META-INF/MANIFEST.MF

         >>> Signer
         X.509, CN="Oracle America, Inc.", O="Oracle America, Inc.",
   L=Redwood City, ST=California, C=US
         [
         Signature algorithm: SHA256withRSA, 3072-bit key
         [certificate is valid from 12/19/24 12:00 AM to 12/19/25 11:59 PM]
         X.509, CN=DigiCert Trusted G4 Code Signing RSA4096 SHA384 2021 CA1,
   O="DigiCert, Inc.", C=US
   ```

```
      [
      Signature algorithm: SHA384withRSA, 4096-bit key
      [certificate is valid from 4/29/24 12:00 AM to 4/28/36 11:59 PM]
      X.509, CN=DigiCert Trusted Root G4, O=DigiCert Inc, C=US
      [
      Signature algorithm: SHA384withRSA, 4096-bit key
      [trusted certificate]
      >>> TSA
      X.509, CN=DigiCert Timestamp 2024 - 2, O=DigiCert, C=US
      [
      Signature algorithm: SHA256withRSA, 4096-bit key
      [certificate is valid from 9/21/24 12:00 AM to 11/21/33 11:59 PM]
      X.509, CN=DigiCert Trusted G4 RSA4096 SHA256 TimeStamping CA,
O="DigiCert, Inc.", C=US
      [
      Signature algorithm: SHA256withRSA, 4096-bit key
      [certificate is valid from 3/23/24 12:00 AM to 3/22/37 11:59 PM]
      X.509, CN=DigiCert Trusted Root G4, O=DigiCert Inc, C=US
      [
      Signature algorithm: SHA384withRSA, 4096-bit key
      [certificate is valid from 8/1/24 12:00 AM to 11/9/31 11:59 PM]

       2237281 Fri Feb 17 07:02:32 UTC 2024 META-INF/ORACLE_C.SF (and 1
more)

      (Signature related entries)

            0 Fri Feb 17 05:41:24 UTC 2023 OPatch/ (and 1897 more)

      (Directory entries)

       2977 Tue Dec 20 08:02:16 UTC 2024 OPatch/README.txt (and 20199 more)

      [entry was signed on 2/17/24 7:02 AM]
      >>> Signer
      X.509, CN="Oracle America, Inc.", O="Oracle America, Inc.",
L=Redwood City, ST=California, C=US
      [
      Signature algorithm: SHA256withRSA, 3072-bit key
      [certificate is valid from 8/19/24 12:00 AM to 8/19/25 11:59 PM]
      X.509, CN=DigiCert Trusted G4 Code Signing RSA4096 SHA384 2021 CA1,
O="DigiCert, Inc.", C=US
      [
      Signature algorithm: SHA384withRSA, 4096-bit key
      [certificate is valid from 4/29/24 12:00 AM to 4/28/36 11:59 PM]
      X.509, CN=DigiCert Trusted Root G4, O=DigiCert Inc, C=US
      [
      Signature algorithm: SHA384withRSA, 4096-bit key
      [trusted certificate]
      >>> TSA
      X.509, CN=DigiCert Timestamp 2024 - 2, O=DigiCert, C=US
      [
      Signature algorithm: SHA256withRSA, 4096-bit key
      [certificate is valid from 9/21/24 12:00 AM to 11/21/33 11:59 PM]
      X.509, CN=DigiCert Trusted G4 RSA4096 SHA256 TimeStamping CA,
O="DigiCert, Inc.", C=US
```

```
      [
      Signature algorithm: SHA256withRSA, 4096-bit key
      [certificate is valid from 3/23/24 12:00 AM to 3/22/37 11:59 PM]
      X.509, CN=DigiCert Trusted Root G4, O=DigiCert Inc, C=US
      [
      Signature algorithm: SHA384withRSA, 4096-bit key
      [certificate is valid from 8/1/24 12:00 AM to 11/9/31 11:59 PM]


  s = signature was verified
  m = entry is listed in manifest
  k = at least one certificate was found in keystore
  i = at least one certificate was found in identity scope

- Signed by "CN="Oracle America, Inc.", O="Oracle America, Inc.",
L=Redwood City, ST=California, C=US"
    Digest algorithm: SHA-256
    Signature algorithm: SHA256withRSA, 3072-bit key
  Timestamped by "CN=DigiCert Timestamp 2024 - 2, O=DigiCert, C=US" on Fri
Feb 17 07:02:33 UTC 2024
    Timestamp digest algorithm: SHA-256
    Timestamp signature algorithm: SHA256withRSA, 4096-bit key

jar verified.

The signer certificate will expire on 2025-12-19.
The timestamp will expire on 2031-11-09.
```

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Installing the Oracle WebLogic Server and Coherence Software

This section describes how to start the Oracle WebLogic Server and Coherence installation program in graphical mode and the sequence of screens during the installation process. This section includes the following topics:

Starting the Installation Program

You launch the installation program from the JDK directory on your system.

To start the installation program:

1. Sign in to the target system.
2. Verify that a certified JDK already exists on your system; the installer requires a certified JDK. See Oracle Fusion Middleware Supported System Configurations. To download the JDK, see About JDK Requirements for an Oracle Fusion Middleware Installation.
3. Go to the directory where you downloaded the installation program.
4. Launch the installation program by running `java -jar` from the JDK directory on your system.

   On UNIX operating systems, you can use one of the following installers:

   ```
   /home/Oracle/jdk/jdk17.0.12/bin/java -jar fmw_14.1.2.0.0_wls_generic.jar

   /home/Oracle/jdk/jdk17.0.12/bin/java -jar
   fmw_14.1.2.0.0_infrastructure_generic.jar
   ```

   On Windows operating systems, you can use one of the following installers:

   ```
   C:\Program Files\Java\jdk17.0.12\bin\java -jar fmw_14.1.2.0.0_wls_generic.jar

   C:\Program Files\Java\jdk17.0.12\bin\java -jar
   fmw_14.1.2.0.0_infrastructure_generic.jar
   ```

> **Note:**
>
> Be sure to replace the JDK location in these examples with the actual JDK location on your system.

When the installation program opens, you are ready to begin the installation. Navigating the Installation Screens describes each screen.

Navigating the Installation Screens

The installation program shows a series of screens.

The following table describes installation program screens in the order in which they appear.

> **Tip:**
>
> If you need more help with any installation screen, click the screen name.

Table 2-1 Oracle WebLogic Server and Coherence Installation Screens

Screen	Description
Installation Inventory Setup	On UNIX operating systems, this screen opens if this is the first time you are installing any Oracle product on this host. Specify the location where you want to create your central inventory. Make sure that the operating system group name selected on this screen has write permissions to the central inventory location. See Understanding the Oracle Central Inventory in *Installing Software with the Oracle Universal Installer*. This screen does not appear on Windows operating systems.
Auto Updates	If you enable Auto Updates, the installer checks for new versions of this software. Keep the default setting **Skip Auto Updates** if you do not want your system to check for software updates at this time. Click **Select patches from directory** to navigate to a local directory if you downloaded patch files. Select **Search My Oracle Support for Updates** to automatically download software updates if you have a My Oracle Support account. You must enter Oracle Support credentials then click **Search**. To configure a proxy server for the installer to access My Oracle Support, click **Proxy Settings** . Click **Test Connection** to test the connection.
Welcome	This screen introduces you to the product installer.
Installation Location	Use this screen to specify your Oracle home directory location. For more on the directory structure, see Selecting Directories for Installation and Configuration in *Planning an Installation of Oracle Fusion Middleware*.

Table 2-1 (Cont.) Oracle WebLogic Server and Coherence Installation Screens

Screen	Description
Installation Type	To create the standard installation topology for WebLogic Server and Coherence, select **WebLogic Server**. **Note:** The Coherence gets installed with the Weblogic Server Installation and there is no option to deselect it under **WebLogic Server**. **Note:** The topology in this document does not include server examples; Oracle strongly recommends that you do not install the examples into a production environment. See About the Coherence Installation Type for more on the **Coherence** installation type. See About the Oracle WebLogic Server and Coherence Distribution for more on Oracle WebLogic Server installation types.
Prerequisite Checks	Verifies that your system meets the minimum necessary requirements. If you see a warning or error message, see one of the documents in Roadmap for Verifying Your System Environment.
Installation Summary	Use this screen to verify the installation options you chose. Optional: To save these options to a response file, click **Save Response File** and enter the location and file name. You can use response files later for silent installations. For more on silent or command line installation, see Running the Oracle Universal Installer in Silent Mode in *Installing Software with the Oracle Universal Installer*.
Installation Progress	Shows the installation progress.
Installation Complete	Opens when installation is complete. The next step is launching the Configuration Wizard to create a WebLogic domain. There are two ways to do this: • Select **Automatically Launch the Configuration Wizard**. After you click **Finish**, the Configuration Wizard starts and you configure a domain. To do this, see Navigating Configuration Wizard Screens to Configure the Domain. • Do not select **Automatically Launch the Configuration Wizard** on this screen. After you click **Finish**, you must manually start the Configuration Wizard to configure a domain. To do this, see Starting the Configuration Wizard. If you chose the **Complete with Examples** installation type, you see an option to start the Quick Start Configuration Wizard, which you use to create sample domains. See Quick Start Configuration Wizard in *Creating WebLogic Domains Using the Configuration Wizard*.

About the Coherence Installation Type

For the WebLogic Server and Coherence standard installation topology, select the **WebLogic Server** installation type. When you select this installation type and use instructions in this guide, the standard installation topology includes a Coherence cluster that contains storage-enabled Managed Coherence Servers.

The **Coherence Installation** installation type is for users who want to deploy and manage Coherence applications using the WebLogic Management Framework. See the following:

- Deploying Coherence Applications in *Administering Oracle Coherence*.
- What is the WebLogic Management Framework? in *Understanding Oracle Fusion Middleware*.

3

Creating and Configuring the WebLogic Domain

This section describes how to create and configure the WebLogic Server domain after you successfully install WebLogic Server and Coherence software.
This section includes the following topics:

Configuring the WebLogic Domain

Use the steps in this topic to create a WebLogic domain using the Configuration Wizard.

For other methods to create a domain, see Additional Tools for Creating, Extending, and Managing WebLogic Domains in *Creating WebLogic Domains Using the Configuration Wizard*.

This section includes the following topics:

Starting the Configuration Wizard

To begin domain configuration, navigate to the *ORACLE_HOME*/oracle_common/common/bin directory and start the Configuration Wizard.

On UNIX operating systems:

```
./config.sh
```

On Microsoft Windows operating systems:

```
config.cmd
```

Navigating Configuration Wizard Screens to Configure the Domain

Follow the sequence of topics in this section to configure the domain with the Configuration Wizard. You can also use this procedure to extend an existing domain.

If your settings don't match those in the procedure, change your selections accordingly or see supporting documentation for additional details.

To configure multiple products in a single domain, see Installing Multiple Products in the Same Domain in *Planning an Installation of Oracle Fusion Middleware*.

Selecting the Configuration Type and Domain Home Location

Use this screen to select a configuration type and domain home directory.

To specify the type of domain configuration to perform:

1. On the Configuration Type screen, select **Create a New Domain**.
2. In the Domain Location field, specify your Domain home directory.

Oracle recommends that you locate your Domain home in accordance with the directory structure summarized in What are the Key Oracle Fusion Middleware Directories? in

Understanding Oracle Fusion Middleware, where the Domain home is located outside the Oracle home directory. This directory structure helps you avoid issues when you upgrade or reinstall your software.

> **Tip:**
>
> For more on the Domain home directory, see Choosing a Domain Home in *Planning an Installation of Oracle Fusion Middleware*.
>
> For more about reinstalling the software, see Reinstalling Your Software.
>
> For more about other options on this screen, see Configuration Type in *Creating WebLogic Domains Using the Configuration Wizard*.

Selecting Configuration Templates

You can select specific templates so that Managed Servers in the cluster will be managed Coherence servers, and the cluster will be a managed Coherence cluster. This is a starting point to set up your Coherence environment.

On the Templates screen select the following templates for configuration:

- **Basic WebLogic Server Domain** (selected by default)
- **WebLogic Coherence Cluster Extension**

> **Tip:**
>
> See Templates in *Creating WebLogic Domains Using the Configuration Wizard* for details about options on this screen.

Configuring the Administrator Account

On the Administrator Account screen, specify the user name and password for the default WebLogic Administrator account for the domain.

This account is used to boot and connect to the domain's Administration Server.

> **Tip:**
>
> You must make a note of the user name and password you choose to enter here; you will need this in order to be able to start and access the Administration Server.

Specifying the Domain Mode and JDK

Use the Domain Mode and JDK screen to specify the domain mode and Java Development Kit (JDK) for your production environment.

On the Domain Mode and JDK screen:

- Select **Production** in the **Domain Mode** field.

> **Note:**
>
> As of WebLogic Server 14.1.2.0.0, when you select **Production** mode, WebLogic Server automatically sets some of the security configurations of **Secured Production** to more secure values. However, there are certain security configurations (such as SSL/TLS) that require manual configuration. See Using Secured Production Mode in *Administering Security for Oracle WebLogic Server*.
>
> If you want to disable the more secure default settings, then you may select **Disable Secure Mode**. This will enable the non-SSL listen ports.
>
> If you want to retain the more secure default settings of **Secured Production** mode in general, but want to change which ports (listen ports, SSL listen ports, or administration ports) will be enabled by default in your domain, then you may:
>
> – Leave **Disable Secure Mode** unselected, and
>
> – Change the default port selections under **Enable or Disable Default Ports for Your Domain**
>
> For more information, see Understand How Domain Mode Affects the Default Security Configuration in *Securing a Production Environment for Oracle WebLogic Server*.

- Select the **Oracle HotSpot JDK** in the **JDK** field.

For more information about this screen, see Domain Mode and JDK in *Creating WebLogic Domains Using the Configuration Wizard*.

Selecting Advanced Configuration

To complete domain configuration for the topology, select these options on the Advanced Configuration screen:

- Administration Server

  Required to properly configure the Administration Server listen address.

- Node Manager
- Topology

  Required to configure the Managed Servers and cluster, and for configuring the machine and targeting Managed Servers to the machine.

> **Tip:**
>
> To configure dynamic clusters, see Creating Dynamic Clusters in *Administering Clusters for Oracle WebLogic Server*.

Configuring the Administration Server Listen Address

Use the Administration Server screen to select the Listen Address and configure the Administration Server ports.

> **Note:**
>
> The default port values will vary depening on how you conifigured your domain. The Enable SSL Listen Port is enabled by default, but the default values may change. For a list of default values, see Port Numbers by Product and Component.

1. Provide a name for the Administration Server. The name field must not be null or empty and cannot contain any special characters.
2. Select the drop-down list next to **Listen Address** and select the IP address of the host where the Administration Server will reside or use the system name or DNS name that maps to a single IP address. Do *not* use `All Local Addresses`.
3. Verify the port settings. When the domain type is set to Production, then the **Enable SSL Listen Port** option is enabled by default. Do *not* specify any server groups for the Administration Server.

> **Note:**
>
> You can change the port values as needed, but **they must be unique**. If the same port numbers are used for different ports, you will not be able to navigate to the next step in the Configuration Wizard.

For more information, see Specifying the Listen Address in *Creating WebLogic Domains Using the Configuration Wizard*.

Configuring Node Manager

Use the Node Manager screen to select the type of Node Manager you want to configure, along with the Node Manager credentials.

Select **Per-Domain Default Location** as the Node Manager type, then specify Node Manager credentials.

> **Tip:**
>
> See Node Manager in *Creating WebLogic Domains Using the Configuration Wizard* for details about options on this screen.
>
> See Node Manager Overview in *Administering Node Manager for Oracle WebLogic Server* for details about the types of Node Manager.

Configuring Managed Servers

Use the Managed Servers screen to create a new Managed Server.

1. Click the **Add** button to create a new Managed Server.
2. Specify a server name such as `wls_server_1` in the Server name column.
3. In the Listen Address drop-down list, select the IP address of the host that the Managed Server will reside on. Do not use All Local Addresses.
4. Verify your port selections. If you selected Production mode with Secure Mode enabled, **Enable SSL Port** is selected by default. The default port is 8003 and this port will be auto-incremented so that the ports do not conflict with any additional managed servers you add. This is true for Listen Ports and Administration Ports. You can edit any and all port values based on your configuration and machines being used.

   > **Note:**
   >
   > You can change the port values as needed using an integer in the range of 1 and 65535, but they **must be unique**. If the same port numbers are used for different ports, you will receive a port conflict error and you will not be able to start the server.

   Oracle recommends that you enable SSL ports for added security. If, however, you want to change the port setting to use the less secure Listen Port, then disable the Enable SSL Port and check the **Enable Listen Port** option.
5. Repeat this process to create a second Managed Server such as `wls_server_2`.

   Configuring a second Managed Server is one of the steps needed to configure the standard topology for high availability. If you are *not* creating a highly available environment, then this step is optional.

   For more information on the high availability standard topology, see Understanding the Fusion Middleware Standard HA Topology in the *High Availability Guide*.

The rest of this document uses the `wls_server_1` and `wls_server_2` server names; if you choose different names, be sure to substitute `wls_server_1` and `wls_server_2` with your server names. The port numbers will be auto-incremented.

> **Tip:**
>
> For more options on this screen, see Managed Servers in *Creating WebLogic Domains Using the Configuration Wizard*.

Configure a Cluster

You configure a cluster to group Managed Servers.

To create a new cluster:

1. Click the **Add** button.

2. Enter `wls_cluster_1` in the Cluster Name field.
3. Leave the cluster Address field blank.

By default, server instances in a cluster use unicast to communicate with each other. To change your cluster communications to use multicast, see Considerations for Choosing Unicast or Multicast in *Administering Clusters for Oracle WebLogic Server*.

> **Tip:**
>
> For more about options on this screen, see Clusters in *Creating WebLogic Domains Using the Configuration Wizard*.

Defining Server Templates

If you are creating dynamic clusters for a high availability setup, use the Server Templates screen to define one or more server templates for the domain.

To add Server Templates:

> **Note:**
>
> The default port values will vary depening on how you conifigured your domain. The Enable SSL Listen Port is enabled by default, but the default values may change. For a list of default values, see Port Numbers by Product and Component.

1. Click **Add** to create `new_ServerTemplate_1`. The server template name will increment automatically when an additional server template is added (`new_ServerTemplate_2`).
2. For Secure Production Mode, verify that the **Enable SSL Port** option is selected. The default SSL Listen Port does not increment automatically when a new server template is added. You can change the default to Enable Listen Port, but Oracle recommends that retain the default to enable SSL. Enabling Listen Port disables SSL Listen Port.

   > **Note:**
   >
   > You can change the port values as needed using an integer in the range of 1 and 65535, but they must be unique. If the same port numbers are used for different ports, you will receive a port conflict error and you will not be able to start the server.

3. The Administration Port does not increment when an additional server template is added.

   > **Note:**
   >
   > If the Listen ports are disabled, then instead of seeing a number you will see `Disabled`.

For steps to create a dynamic cluster for a high availability setup, see Using Dynamic Clusters in *High Availability Guide*.

Configuring Dynamic Servers

If you are creating dynamic clusters for a high availability setup, use the Dynamic Servers screen to configure the dynamic servers.

If you are *not* configuring a dynamic cluster, click **Next** to continue configuring the domain.

> **Note:**
>
> When you create dynamic clusters, keep in mind that after you assign the **Machine Name Match Expression**, you do not need to create machines for your dynamic cluster.

To create a dynamic cluster for a high availability setup, see Using Dynamic Clusters in *High Availability Guide*.

Assigning Managed Servers to the Cluster

To assign `wls_server_1` and `wls_server_2` to the new cluster `wls_cluster_1`, use the Assign Servers to Clusters screen.

1. In the Clusters pane, select the cluster that you want to assign the servers to; in this case, `wls_cluster_1`.
2. In the Servers pane, take one of the following steps to assign `wls_server_1` to `wls_cluster_1`:
   - Click once on `wls_server_1` to select it, then click on the right arrow to move it beneath the selected cluster (`wls_cluster_1`) in the Clusters pane.
   - Double-click on `wls_server_1` to move it beneath the selected cluster (`wls_cluster_1`) in the clusters pane.
3. Repeat to assign `wls_server_2` to `wls_cluster_1`.

> **Tip:**
>
> See Assign Servers to Clusters in *Creating WebLogic Domains Using the Configuration Wizard* for details on options in this screen.

Configuring Coherence Clusters

Use the Coherence Clusters screen to configure the Coherence cluster that is automatically added to the domain. Leave the default port number 7574 as the Coherence cluster listen port.

> **Note:**
>
> Setting the unicast listen port to 7574 creates an offset for the Managed Server port numbers. The offset is 5000, meaning the maximum allowed value that can be assigned to a Managed Server port number is 60535, instead of 65535.

See Performing Additional Configuration Tasks for next steps for configuring Coherence. For Coherence licensing information, see Oracle Coherence in *Oracle Fusion Middleware Licensing Information*.

Creating a New Machine

To create a new machine in the domain, use the Machines screen. Node Manager requires a machine to be able to start and stop servers.

> **Tip:**
>
> If you plan to create a high availability environment and know the list of machines that your target topology requires, you can follow the steps in this topic to create all machines at this time. See Optional Scale Out Procedure in *High Availability Guide*.

To create a new machine in the domain:

1. Click the **Add** button to create a new machine.
2. Specify `wls_machine_1` in the Name field.
3. In the Node Manager Listen Address field, select the IP address of the machine where you are configuring Managed Servers.

   You must select a specific interface and not **localhost**. This allows Coherence cluster addresses to be dynamically calculated.
4. Verify the port in the Node Manager Listen Port field.

   Other examples in the documentation may refer to the port number `5556`. Replace this port number with your own port number as needed.

   > **Note:**
   >
   > If you extend an existing domain, you can assign servers to any existing machine. It is not necessary to create a new machine unless your situation requires it.

> **Tip:**
>
> See Machines in *Creating WebLogic Domains Using the Configuration Wizard* for more about this screen.

Assigning Servers to Machines

You assign both Managed Servers to a machine.

To assign the Administration Server and Managed Servers to the new machine you just created:

1. In the Machines pane, select the machine you want to assign the servers to; in this case, `wls_machine_1`.
2. In the Servers pane, assign `AdminServer` to `wls_machine_1` by doing one of the following:
   - Click once on `AdminServer` to select it, then click on the right arrow to move it beneath the selected machine (`wls_machine_1`) in the Machines pane.
   - Double-click on `AdminServer` to move it beneath the selected machine (`wls_machine_1`) in the Machines pane.
3. Repeat to assign both `wls_server_1` and `wls_server_2` to `wls_machine_1`.

> **Tip:**
>
> See Assign Servers to Machines in *Creating WebLogic Domains Using the Configuration Wizard*.

Reviewing Your Configuration Specifications and Configuring the Domain

The Configuration Summary screen has detailed configuration information for the domain you are about to create. Review this screen to verify that the information is correct.

To make any changes, go back to a screen by using the **Back** button or selecting the screen in the navigation pane.

Domain creation does not start until you click **Create**.

> **Tip:**
>
> See Configuration Summary in *Creating WebLogic Domains Using the Configuration Wizard* for more on options in this screen.

Writing Down Your Domain Home and Administration Server URL

The Configuration Success screen shows two important items about the domain you just configured.

The Configuration Success screen shows:

- Domain Location
- Administration Server URL

You must make a note of both items; you need them to start the servers and access the Administration Server.

Click **Finish** to dismiss the Configuration Wizard.

Starting the Servers

After you finish configuration, Oracle recommends that you take the following steps to access tools that you use to manage your domain

> **Note:**
>
> Depending on your existing security settings, you may need to perform additional configuration before you can manage a domain with secured production mode enabled. For more information, see Connecting to the Administration Server using WebLogic Remote Console.

Starting the Node Manager

To start your per-domain Node Manager, go to the *DOMAIN_HOME*/bin directory.

On UNIX operating systems, start Node Manager as shown below, using `nohup` and `nm.out` as an example output file:

```
nohup ./startNodeManager.sh > nm.out&
```

On Windows operating systems, run:

```
startNodeManager.cmd
```

> **Note:**
>
> If you use Windows, Oracle recommends that you install Node Manager to run as a startup service. This allows Node Manager to start up automatically each time the system is restarted. (Node Manager is not required to start servers, Oracle recommends it over other methods.)
>
> See Running Node Manager as a Startup Service in *Administering Node Manager for Oracle WebLogic Server*.

Starting the Administration Server

To start the Administration Server, go the *DOMAIN_HOME*/bin directory.

On UNIX operating systems:

```
./startWebLogic.sh
```

On Windows operating systems:

```
startWebLogic.cmd
```

If you selected **Production Mode** on the Domain Mode and JDK screen, then you will see a prompt for Administrator login credentials, shown on the Administrator Account screen in Configuring the Administrator Account.

> **Tip:**
>
> For more about starting the Administration Server, see Starting and Stopping Servers in *Administering Server Startup and Shutdown for Oracle WebLogic Server*.
>
> In production mode, you can create a boot identity file to bypass the need to provide a user name and password when starting the Administration Server. See Creating a Boot Identity File for an Administration Server in *Administering Server Startup and Shutdown for Oracle WebLogic Server*.

Starting Managed Servers

To start Managed Servers, go the *DOMAIN_HOME*/bin directory and run the command:

> **Note:**
>
> Depending on your existing security settings, you may need to perform additional configuration before you can start managed servers in a domain with secured production mode enabled. For more information see Starting Managed Servers using WebLogic Remote Console in *Administering Security for Oracle WebLogic Server*

On UNIX operating systems:

```
./startManagedWebLogic.sh managed_server_name admin_server_url
```

On Windows operating systems:

```
startManagedWebLogic.cmd managed_server_name admin_server_url
```

Replace *managed_server_name* with the names of Managed Server you want to start. For this topology, Managed Server names are wls_server_1 and wls_server_2 (defined on the Managed Server screen in Configuring Managed Servers). You must run this command twice, once for each Managed Server.

Replace *admin_server_url* with the Administration Server's full URL, as shown in the Configuration Success screen in Reviewing Your Configuration Specifications and Configuring the Domain.

The following examples show commands to start wls_server_1 and wls_server_2 on a UNIX operating system:

```
./startManagedWebLogic.sh wls_server_1 https:\\examplehost.exampledomain.com:8003 &
./startManagedWebLogic.sh wls_server_2 https:\\examplehost.exampledomain.com:8004 &
```

> **Tip:**
>
> For more on starting Managed Servers, see Starting and Stopping Servers in *Administering Server Startup and Shutdown for Oracle WebLogic Server*.

Verifying the Configuration

This section explains how to verify that your domain is configured properly.

To verify configuration, see Performing Basic Administrative Tasks. Oracle recommends that you familiarize yourself with the tasks that this section describes and perform them to verify that your domain is properly configured.

4

Next Steps After Configuring the WebLogic Server Domain

This section describes common tasks you might want to perform on the newly created WebLogic Server domain.
This section includes the following topics:

Performing Basic Administrative Tasks

Review the administrative tasks you will likely want to perform on a new domain.

Table 4-1 Basic Administration Tasks for a New Domain

Task	Description	More Information
Getting familiar with WebLogic Server administration tools	Get familiar with various tools that you can use to manage your environment. **Note:** The WebLogic Server Administration Console has been removed. For comparable functionality, you should use the WebLogic Remote Console. For more information, see Oracle WebLogic Remote Console.	See System Administration in *Understanding Oracle WebLogic Server*.
Starting and stopping products and servers	Learn how to start and stop Administration Server, Managed Servers, and components.	See Starting and Stopping Servers in *Administering Server Startup and Shutdown for Oracle WebLogic Server*.

Table 4-1 (Cont.) Basic Administration Tasks for a New Domain

Task	Description	More Information
Configuring Secure Sockets Layer (SSL)	Learn how to set up secure communications for Oracle WebLogic Server using SSL.	See Configuring SSL for Oracle WebLogic Server in *Administering Oracle Fusion Middleware*.
Monitoring Oracle WebLogic Server	Learn how to keep track of the status of Oracle WebLogic Server.	See Monitoring, Diagnosing, and Troubleshooting in *Understanding Oracle WebLogic Server*.
Understanding Backup and Recovery Procedures	Learn the recommended backup and recovery procedures for OracleWebLogic Server.	See Recovering Oracle WebLogic Server with Whole Server Migration and Backup and Recovery Considerations for Oracle WebLogic Server JMS in *Administering Oracle Fusion Middleware*.

Performing Additional Domain Configuration Tasks

Review additional configuration tasks you will likely want to perform on a new domain.

Table 4-2 Additional Domain Configuration Tasks

Task	Description	More Information
Deploying Applications	Learn how to deploy your applications to Oracle Fusion Middleware.	See Deploying Applications in *Administering Oracle Fusion Middleware*.
Adding a Web Tier front-end to your domain	Oracle Web Tier hosts Web pages (static and dynamic), provides security and high performance along with built-in clustering, load balancing, and failover features. In particular, the Web Tier contains Oracle HTTP Server.	To install and configure Oracle HTTP Server in the WebLogic Server domain, see Configuring Oracle HTTP Server in a WebLogic Server Domain in *Installing and Configuring Oracle HTTP Server*.
Tuning and configuring Coherence for your topology	The standard installation topology includes a Coherence cluster that contains storage-enabled Managed Coherence Servers. This configuration is a good starting point for using Coherence, but depending upon your specific requirements, consider tuning and reconfiguring Coherence to improve performance in a production environment.	For more about Coherence clusters, see Configuring and Managing Coherence Clusters in *Administering Clusters for Oracle WebLogic Server*. For information on tuning Coherence, see Performance Tuning in *Administering Oracle Coherence*. For information on storing HTTP session data in Coherence, see Using Coherence*Web with WebLogic Server in *Administering HTTP Session Management with Oracle Coherence*Web*. For more about creating and deploying Coherence applications, see Getting Started in *Developing Oracle Coherence Applications for Oracle WebLogic Server*.

Preparing Your Environment for High Availability

Scaling out for high availability requires additional steps.

Table 4-3 provides a list of tasks to perform if you want to scale out your standard installation environment for high availability.

> **Note:**
>
> BAM domains that were created using WLST, and will be used in a high availability configuration, require additional provisioning scripts after the installation. The default / internal Data Objects are missing in BAM Composer when the domain is created using WLST and the scripts provide the pre-seeded data that is required for high availability BAM domains. For more information, My Oracle Support document ID 2190789.1.
>
> .

Table 4-3 Tasks Required to Prepare Your Environment for High Availability

Task	Description	More Information
Scaling out to multiple host computers	To enable high availability, it is important to provide failover capabilities to another host computer. That way, if one computer goes down, your environment can continue to serve the consumers of your deployed applications.	See Scaling Out a Topology (Machine Scale Out) in *High Availability Guide*.
Configuring high availability for your Web Tier components.	If you have added a Web tier front-end, then you must configure the Web Tier for high availability, as well as the WebLogic Server software.	See Configuring High Availability for Web Tier Components in *HTTP Server Administration Guide*.
Setting up a front-end load balancer	You can use a load balancer to distribute requests across servers more evenly.	See Server Load Balancing in a High Availability Environment in *High Availability Guide*.
Configuring Node Manager	Node Manager enables you to start, shut down, and restart the Administration Server and Managed Server instances from a remote location. This document assumes you have configured a per-domain Node Manager. Review the Node Manager documentation, for information on advanced Node Manager configuration options and features.	See Advanced Node Manager Configuration in *Administering Node Manager for Oracle WebLogic Server*.

5

Uninstalling Oracle WebLogic Server and Coherence

This section describes how to uninstall and reinstall Oracle WebLogic Server and Coherence. Oracle recommends that you always use the instructions in this section to remove the software. If you try to remove the software manually, you may encounter problems when you try to reinstall the software again at a later time. Following the procedures in this section ensures that the software is properly removed.
This section includes the following topics:

About Product Uninstallation

The deinstaller removes the software from the Oracle home directory that you start it in.

The deinstaller removes only components that the installation program installed; the deinstaller does *not* remove:

- All files and directories in the Oracle home.
- The JDK or any user-created data, such as WebLogic domains or custom application data.

The following table summarizes the procedure and has links to supporting documents.

Table 5-1 Roadmap for Uninstalling Oracle Fusion Middleware

Task	Description and Documentation	Documentation
Stop Oracle Fusion Middleware.	Oracle recommends that you stop all servers and processes in your domain before you run the deinstaller	See Stopping Oracle WebLogic Server.
Remove the software.	Run the product deinstaller to remove Oracle WebLogic Server and Coherence.	See Uninstall the Software.
Remove the Oracle home directory.	The deinstaller does not remove all files and folders from the Oracle home directory. After the deinstaller finishes, you must manually remove the Oracle home to complete your product removal.	See Removing Oracle Home Directory Manually.
Remove program shortcuts (Windows operating systems)	The deinstaller does not remove the program shortcuts on your Windows operating system.	See Removing Program Shortcuts on Windows Operating Systems
Remove your domain and application data.	The deinstaller does not remove data contained in your Domain home or Application home directories, even if they are located inside the Oracle home. You must remove these directories manually.	See Removing Your Domain and Application Data.

Stopping Oracle WebLogic Server

Before you run the deinstaller, Oracle recommends that you stop all servers and processes associated with the Oracle home you are going to remove.

See Starting and Stopping Servers in *Administering Server Startup and Shutdown for Oracle WebLogic Server*.

Uninstall the Software

Follow steps in this section to start the product deinstaller and remove the software.

To run a silent (command-line) uninstallation, see Running the Oracle Universal Installer for Silent Deinstallation in *Installing Software with the Oracle Universal Installer*.

Start the Uninstallation Program

How you uninstall a program depends on your operating system: Windows or UNIX.

On UNIX operating systems, go to the *ORACLE_HOME*`/oui/bin` directory and enter the command `./deinstall.sh`

On Windows operating systems, choose one of the following options to start uninstallation:

- From the command line, go to the *ORACLE_HOME*`\oui\bin` and enter `deinstall.cmd`.
- From the **Start** menu, select **All Programs**, select **Oracle**, select **OracleHome**, then select **Uninstall Oracle Middleware**.
- Use a file manager window to go to the *ORACLE_HOME*`\oui\bin` directory and double click on `deinstall.cmd`

Navigating through Uninstallation Screens

The uninstallation program shows a series of screens, in the order that the following table lists.

If you need additional help with the uninstallation screen, click **Help**.

Table 5-2 Uninstallation Screens and Descriptions

Screen	Description
Welcome	Introduces you to the product deinstaller.
Deinstallation Summary	Shows the Oracle home directory and its contents to deinstall. Verify that this is the correct directory. Click **Deinstall** to begin removing the software.
Deinstallation Progress	Shows the deinstallation progress.
Deinstallation Complete	Opens when the deinstallation is complete. Review this screen then click **Finish** to dismiss the deinstaller.

Removing Oracle Home Directory Manually

After deinstalling the software, you must manually remove your Oracle home directory and any existing subdirectories that the deinstaller did not remove.

For example, if your Oracle home directory is `/home/Oracle/products/Oracle_Home` on a UNIX operating system:

```
cd /home/Oracle/products
rm -rf Oracle_Home
```

On a Windows operating system, if your Oracle home directory was `C:\Oracle\Products\Oracle_Home`, use a file manager window and navigate to the `C:\Oracle\Products` directory, then right-click on the `Oracle_Home` folder and select **Delete**.

Removing Program Shortcuts on Windows Operating Systems

On Windows operating systems, you must manually remove the program shortcuts; the deinstaller does not remove them for you.

Go to the `C:\Program Data\Microsoft\Windows\Start Menu\Programs\Oracle\`*`Oracle Home`*`\`*`Product`* directory. If you only have one product installed in your Oracle home, you can remove the *`Oracle Home`* directory. If you have multiple products installed in your Oracle home, you must remove all products before removing the *`Oracle Home`*.

Removing Your Domain and Application Data

After deinstalling the software, you must remove the domain and application data if you don't plan to use it or if you don't plan to reconfigure a domain for a new WebLogic Server installation..

To remove your domain and application data:

1. Manually remove your Domain home directory.

   For example, if your Domain home directory was `/home/Oracle/config/domains/infra_domain` on a UNIX operating system:

   ```
   cd /home/Oracle/config/domains
   rm -rf infra_domain
   ```

   On a Windows operating system, if your Domain home directory was `C:\Oracle\Config\domains\infra_domain`, use a file manager window and navigate to the `C:\Oracle\Config\domains` directory, then right-click on the `infra_domain` folder and select **Delete**.

2. Manually remove your Application home directory.

   For example, if your Application home directory was `/home/Oracle/config/applications/infra_domain` on a UNIX operating system:

   ```
   cd /home/Oracle/config/applications
   rm -rf infra_domain
   ```

   On a Windows operating system, if your Application home directory was `C:\Oracle\Config\applications\infra_domain`, use a file manager window and navigate

to the `C:\Oracle\Config\applications` directory, then right-click on the `infra_domain` folder and select **Delete**.

3. Backup the `domain_registry.xml` file in your Oracle home, then edit the file and remove the line associated with the domain you are removing. For example, to remove the `infra_domain`, find the following line and remove it:

   ```
   <domain location=/home/Oracle/config/domains/infra_domain/>
   ```

   Save and exit the file when you are finished.

Reinstalling Your Software

You can reinstall your software into the same Oracle home as a previous installation *only* if you uninstalled the software by following uninstallation instructions, including manually removing the Oracle home directory.

When you reinstall, you can then specify the same Oracle home as your previous installation.

Consider the following cases where the Oracle home is not empty:

Scenario: Installing in an Existing Oracle Home that Contains the Same Feature Sets

The installer warns you that the Oracle home you specified during installation already contains the software you're trying to install now.

Your options:

- Select a different installation type. In this case, only feature sets that do not already exist in the Oracle home directory get installed.
- Select a different Oracle home directory.

Scenario: Installing in an Existing, Non-Empty Oracle Home

You chose to create your Domain home or Application home somewhere inside your existing Oracle home. The uninstallation process does not remove this data, so if you try to reinstall into the same Oracle home, the installer does not allow it.

Your options:

- Uninstall your software from the Oracle home then remove the Oracle home directory. You can then reinstall and reuse the same Oracle home location, using the instructions in Uninstalling Oracle WebLogic Server and Coherence. You must re-create any domain or application data that was in the Oracle home.
- Select a different Oracle home directory.

A

About the Oracle WebLogic Server and Coherence Distribution

The Oracle WebLogic Server and Coherence distribution includes a variety of products and feature sets.

Table A-1 Oracle Fusion Middleware WebLogic Server and Coherence Products and Feature Sets

Installation Type	Installed Items	Description
WebLogic Server	WebLogic Server	A scalable, enterprise-ready Java Platform, Enterprise Edition (Java EE) application server. The WebLogic Server infrastructure supports the deployment of many types of distributed applications and is an ideal foundation for building applications based on service-oriented architecture (SOA).
WebLogic Server	Coherence	Coherence provides replicated and distributed (partitioned) data management and caching services on top of a reliable, highly scalable peer-to-peer clustering protocol. Coherence has no single points of failure; it automatically and transparently fails over and redistributes its clustered data management services when a server becomes inoperative or is disconnected from the network. When a new server is added, or when a failed server is restarted, it automatically joins the cluster and Coherence fails back services to it, transparently redistributing the cluster load. Coherence includes network-level fault tolerance features and transparent soft re-start capability to enable servers to self-heal. See About Oracle Coherence in *Oracle Fusion Middleware Installing Oracle Coherence*.
WebLogic Server	WebLogic Server Clients	Thin-client JARs required for connecting to a WebLogic Server instance. Includes the JARs for the web services, JMS, Store and Forward, WebLogic RMI, JMS .NET, and JMX clients.

Table A-1 (Cont.) Oracle Fusion Middleware WebLogic Server and Coherence Products and Feature Sets

Installation Type	Installed Items	Description
WebLogic Server	Administration Console	**Note:** In FMW14.1.2.0.0, the WebLogic Server Administration Console has been replaced by the WebLogic Remote Console. For more information, see Oracle WebLogic Remote Console. A web application hosted by the Administration Server that is used for managing and monitoring an active domain.
WebLogic Server	CIE WLS Config	Provides files used by the Oracle Fusion Middleware Configuration Wizard.
WebLogic Server	Third-Party JDBC Drivers	Other JDBC drivers bundled with WebLogic Server that can be used to connect a WebLogic Server environment to an external database. For details about this feature set, see Using JDBC Drivers with WebLogic Server in *Administering JDBC Data Sources for Oracle WebLogic Server*.
WebLogic Server	Third-Party Jackson	Third party open source software for processing JavaScript Object Notation (JSON) data formats.
WebLogic Server	Third-Party Jersey	Third party open source software representing the official implementation of the Representational State Transfer (REST) architecture. See About RESTful Web Service Development in *Developing and Securing RESTful Web Services for Oracle WebLogic Server*.
WebLogic Server	Third-Party Maven Apache	Maven is a build management tool that is central to project build tasks such as compilation, packaging, and artifact management. See Introduction to Continuous Integration in *Developing Applications Using Continuous Integration*.
WebLogic Server	OPatchAuto	The OPatchAuto utility is a tool that allows the application and rollback of interim patches to Oracle products.

Table A-1 (Cont.) Oracle Fusion Middleware WebLogic Server and Coherence Products and Feature Sets

Installation Type	Installed Items	Description
Coherence	WebLogic Server	A scalable, enterprise-ready Java Platform, Enterprise Edition (Java EE) application server. The WebLogic Server infrastructure supports the deployment of many types of distributed applications and is an ideal foundation for building applications based on service-oriented architecture.
Coherence	Coherence	See earlier description in this table. See About Oracle Coherence in *Oracle Fusion Middleware Installing Oracle Coherence* for details on Coherence.
Coherence	Administration Console	**Note:** In FMW14.1.2.0.0, the WebLogic Server Administration Console has been replaced by the WebLogic Remote Console. For more information, see Oracle WebLogic Remote Console. A web application hosted by the Administration Server that is used for managing and monitoring an active domain.
Coherence	CIE WLS Config	Provides files used by the Oracle Fusion Middleware Configuration Wizard.
Coherence	Third-Party JDBC Drivers	Other JDBC drivers bundled with WebLogic Server that can be used to connect a WebLogic Server environment to an external database. See Using JDBC Drivers with WebLogic Server in *Administering JDBC Data Sources for Oracle WebLogic Server*.
Coherence	Third-Party Jackson	Third party open source software for processing JavaScript Object Notation (JSON) data formats.
Coherence	Third-Party Jersey	Third party open source software representing the official implementation of the Representational State Transfer (REST) architecture. See About RESTful Web Service Development in *Developing and Securing RESTful Web Services for Oracle WebLogic Server*.

Table A-1 (Cont.) Oracle Fusion Middleware WebLogic Server and Coherence Products and Feature Sets

Installation Type	Installed Items	Description
Coherence	Third-Party Maven Apache	Maven is a build management tool that is central to project build tasks such as compilation, packaging, and artifact management. See Introduction to Continuous Integration in *Developing Applications Using Continuous Integration*.
Coherence	OPatchAuto	The OPatchAuto utility is a tool that allows the application and rollback of interim patches to Oracle products
Complete Installation with Examples	WebLogic Server	A scalable, enterprise-ready Java Platform, Enterprise Edition (Java EE) application server. The WebLogic Server infrastructure supports the deployment of many types of distributed applications and is an ideal foundation for building applications based on service-oriented architecture (SOA).
Complete Installation with Examples	Coherence	See earlier description in this table. See About Oracle Coherence in *Oracle Fusion Middleware Installing Oracle Coherence*.
Complete Installation with Examples	WebLogic Server Clients	Thin-client JARs required for connecting to a WebLogic Server instance. Includes the JARs for the web services, JMS, Store and Forward, WebLogic RMI, JMS .NET, and JMX clients.
Complete Installation with Examples	Administration Console	**Note:** In FMW14.1.2.0.0, the WebLogic Server Administration Console has been replaced by the WebLogic Remote Console. For more information, see Oracle WebLogic Remote Console. A web application hosted by the Administration Server that is used for managing and monitoring an active domain.
Complete Installation with Examples	CIE WLS Config	Provides files used by the Oracle Fusion Middleware Configuration Wizard.
Complete Installation with Examples	Third-Party JDBC Drivers	Other JDBC drivers bundled with WebLogic Server that can be used to connect a WebLogic Server environment to an external database. For details about this feature set, see Using JDBC Drivers with WebLogic Server in *Administering JDBC Data Sources for Oracle WebLogic Server*.

Table A-1 (Cont.) Oracle Fusion Middleware WebLogic Server and Coherence Products and Feature Sets

Installation Type	Installed Items	Description
Complete Installation with Examples	Apache Derby	Oracle's distribution of the open source Apache Derby Java database, also called Java DB. Derby is a pure Java relational database management system (RDBMS) provided with Oracle WebLogic Server to allow you to run code examples with a functional database server. Derby is for demonstration (that is, non-production) use only
Complete Installation with Examples	Third-Party Jackson	Third party open source software for processing JavaScript Object Notation (JSON) data formats.
Complete Installation with Examples	Third-Party Jersey	Third party open source software representing the official implementation of the Representational State Transfer (REST) architecture. See About RESTful Web Service Development in *Oracle Fusion Middleware Developing and Securing RESTful Web Services for Oracle WebLogic Server*.
Complete Installation with Examples	Third-Party Maven Apache	Maven is a build management tool that is central to project build tasks such as compilation, packaging, and artifact management. See About RESTful Web Service Development in *Developing and Securing RESTful Web Services for Oracle WebLogic Server*.
Complete Installation with Examples	WebLogic Server Examples	Server Examples are example applications that demonstrate key features of WebLogic Server. See Sample Application and Code Examples in *Understanding Oracle WebLogic Server*.
Complete Installation with Examples	Coherence Examples	Coherence Examples demonstrate how to use the features of Coherence in all supported languages (Java, .NET, and C++). The examples are organized collections of code that show how to use one or more features, and provide a single common way (per language) to build and run all examples. Source code for the examples is included. **Note:** Both Server Examples and Coherence Examples are only installed if you select the **Fusion Middleware Infrastructure with Examples** install type.
Complete Installation with Examples	OPatchAuto	The OPatchAuto utility is a tool that allows the application and rollback of interim patches to Oracle products.

B

Installing WebLogic Server for Developers

The WebLogic Server development release includes all the necessary files to develop and test applications on WebLogic Server, but uses less disk space than a complete WebLogic Server installation. The development installation is intended only for development. It is supported on Windows, Linux and Mac OS X systems.
This section includes the following topics:

Files Included with WebLogic Server Development

The development installation has two JAR files.

- Base development installer—Contains required WebLogic Server components:
  - Essential development files, such as Core Application Server and Coherence
  - WebLogic client JAR files
  - TopLink
  - Jackson (open-source Java JSON processor)
  - Jersey (open-source RESTful Web Services framework)
  - Maven (open-source repository manager)
  - OPatchAuto
  - OUI installation and deinstallation files

  The base installer does not include:
  - Native JNI libraries for unsupported platforms
  - Oracle Configuration Manager (OCM)
  - Web services clients
  - Server samples
  - Coherence examples
  - Derby evaluation database
- Supplement development installer—this JAR file adds the following optional WebLogic Server components to an existing base development installation:
  - Server examples
  - Derby evaluation database
  - Coherence examples
  - Web services clients

> **Note:**
>
> For up-to-date information and known issues for WebLogic Server for Developers base and supplemental installers, see README files available for each development installer on the Oracle download site.

Downloading the Installers

This section details how to download the installers from the Oracle Technical Resources page.

To download the files:

1. Create the `ORACLE_HOME` directory in which to install WebLogic Server for Developers.
2. Navigate to `http://download.oracle.com`. WebLogic Server for Developers JAR files are available only on Oracle Technical Reources page.
3. Navigate to the WebLogic Server page.
4. Navigate to the page that lists all WebLogic Server for Developer downloads.
5. Click the link for each file you want to download and save the file to the directory you created in Step 1.

   If you are downloading the files for the first time, you have to accept the license agreement.

WebLogic Server for Developers Installation Prerequisites

The Developers installation has disk space and JDK requirements.

The WebLogic Server for Developers installation requires:

- A minimum of 800MB of disk space
- JDK 17.0 or later, or JDK 21.0 or later

Before you run the installer:

- Set `JAVA_HOME` in the shell window you are using to run the installation.

Operating System	Example Commands
Linux	`export JAVA_HOME=/myhome/jdk17.0.12`
Mac	`export JAVA_HOME= /Library/Java/JavaVirtualMachines/17.0.10.jdk/Contents/Home` `export USER_MEM_ARGS="-Xmx1024m"`
Windows	`set JAVA_HOME=C:\Program Files\java\jdk17.0.12`

- For Mac environments, Oracle recommends that you set the `Xmx` memory argument
- Create the `ORACLE_HOME` directory prior to starting the installation. This directory must exist and must be empty before running the basic installer.

Installing WebLogic Server for Developers

The WebLogic Server for Developers installation uses Oracle Universal Installer to run a silent operation. No input is needed.

You must install the WebLogic Server for Developers base installation first. After it installs, if you want components included in the supplemental installer, run the WebLogic Server for Developers supplemental installation using the same steps.

Topics in this section include the following:

Installing from the ORACLE_HOME Directory

Follow these steps to run the installer from the `ORACLE_HOME` directory.

1. Change to the `ORACLE_HOME` directory you created.
2. Enter the following command to start the installation, where *path* is the directory location that you downloaded the installation JAR file to:

   ```
   java -jar path/installer_jar_filename
   ```

   For example, if you stored the JAR file in `/myhome/downloads`:

   ```
   java -jar /myhome/downloads/installer_jar_filename
   ```
3. When installation completes, see Creating a Development Domain.

Installing from a Directory Other Than ORACLE_HOME

Follow these steps to run the installer from a directory *other than* `ORACLE_HOME` directory

1. Change to the directory that contains the installer JAR file.
2. Enter the following command to start the installation, setting the `ORACLE_HOME` parameter to the `ORACLE_HOME` directory you created.

   ```
   java -jar installer_jar_filename ORACLE_HOME=path_to_MW_HOME
   ```

   For example, if `ORACLE_HOME` is `/myhome/wls1221`:

   ```
   java -jar installer_jar_filename ORACLE_HOME=/myhome/wls1221
   ```
3. When installation completes, see Creating a Development Domain.

Creating a Development Domain

You create a development domain in the same way you normally do for WebLogic Server using either the Configuration Wizard or WebLogic Scripting Tool (WLST).

Oracle recommends that you create the domain *outside* the *`ORACLE_HOME`* directory.

To create a domain using the Configuration Wizard:

1. Change to the `oracle_common/common/bin` directory in your *`ORACLE_HOME`*:

   ```
   cd ORACLE_HOME/oracle_common/common/bin
   ```
2. Start the Configuration Wizard by entering the following command:

(UNIX or Mac) `./config.sh`

(Windows) `config.cmd`

For detailed information about Configuration Wizard screens, click **Help** or see Overview of the Configuration Wizard in *Creating WebLogic Domains Using the Configuration Wizard*.

To create a domain using WLST, see Create WebLogic Domains Using WLST Offline in *Understanding the WebLogic Scripting Tool*.

Starting and Accessing the Domain

You start your domain before accessing the WebLogic Remote Console.

> **Note:**
>
> In FMW14.1.2.0.0, the WebLogic Server Administration Console has been removed. For comparable functionality, you should use the WebLogic Remote Console. For more information, see Oracle WebLogic Remote Console.

To start your WebLogic domain and access the WebLogic Remote Console:

1. Change to the domain directory.
2. Enter the following command:

   (UNIX or Mac) `./startWebLogic.sh`

   (Windows) `startWebLogic.cmd`
3. When the domain is in a RUNNING state, open a Web browser and enter the domain's URL. Use the Administration Port value you entered when creating the domain. For example:

   `https://hostname:port/rconsole`
4. Log in to the WebLogic Remote Console using the Administrator user name and password you entered when you created the domain.

   Hosted WebLogic Remote Console is active as long as the `weblogic-remote-console-app` application is deployed and the Administration Server is running.

For more about starting and stopping WebLogic Server, see Starting and Stopping Servers in *Administering Server Startup and Shutdown for Oracle WebLogic Server*.

Upgrading a Development Installation

To upgrade a development installation, you must download and install the new distribution to a new location. After installing the new distribution, use the Fusion Middleware Reconfiguration Wizard or WLST to associate an existing domain with the new installation.

To upgrade a domain by using the Reconfiguration Wizard:

1. Change to the `oracle_common/common/bin` directory in the new *`ORACLE_HOME`*:

   `cd ORACLE_HOME/oracle_common/common/bin`
2. Start the Reconfiguration Wizard by entering the following command:

(UNIX or Mac) `./reconfig.sh`

(Windows) `reconfig.cmd`

For more details on the Reconfiguration Wizard, click **Help** or see Introduction in Online Help.

To upgrade a domain using WLST, see Reconfiguring a WebLogic Domain Using WebLogic Scripting Tool in *Upgrading Oracle WebLogic Server*.

Patching a Development Installation

You use the Oracle Patching tool (OPatchAuto) to apply patches to a WebLogic Server development installation.

For information about upgrading WebLogic Server, see About Rolling Updates in *Upgrading Oracle WebLogic Server*.

Removing the WebLogic Server for Developers Installation

Use the Oracle Universal Installer (OUI) deinstallation tool to remove a WebLogic Server for Developers installation.

To remove a WebLogic Server for Developers installation:

1. Go to the `oui/bin` directory:

   `cd ORACLE_HOME/oui/bin`

2. Run the deinstaller by entering the following command:

   (UNIX or Mac) `./deinstall.sh`

   (Windows) `deinstall.cmd`

3. Click **Next**.
4. Click **Deinstall**. Wait for deinstallation to complete.
5. Click **Finish**.
6. Navigate up three directory levels:

   `cd ../../..`

7. Remove the *ORACLE_HOME* directory by entering the following command:

   (UNIX or Mac) `rm -r ORACLE_HOME`

   (Windows) `rmdir ORACLE_HOME`

For more information about deinstallation, see Uninstalling Oracle WebLogic Server and Coherence.

C

Updating the JDK After Installing and Configuring an Oracle Fusion Middleware Product

Consider that you have an unsupported JDK version installed on your machine. When you install and configure an Oracle Fusion Middleware product, the utilities, such as Configuration Wizard (`config.sh|exe`), OPatch, or RCU point to a default JDK. The supported JDK version for this release is jdk17.0.12 and it carries security enhancements and bug fixes. You can upgrade the existing JDK to a newer version, and can have the complete product stack point to the newer version of the JDK.

You can maintain multiple versions of JDK and switch to the required version on need basis.

About Updating the JDK Location After Installing an Oracle Fusion Middleware Product

The binaries and other metadata and utility scripts in the Oracle home and Domain home, such as RCU or Configuration Wizard, use a JDK version that was used while installing the software and continue to refer to the same version of the JDK. The JDK path is stored in a variable called JAVA_HOME which is centrally located in .globalEnv.properties file inside the *ORACLE_HOME*`/oui` directory.

The utility scripts such as config.sh|cmd, launch.sh, or opatch reside in the *ORACLE_HOME*, and when you invoke them, they refer to the JAVA_HOME variable located in .globalEnv.properties file. To point these scripts and utilities to the newer version of JDK, you must update the value of the JAVA_HOME variable in the .globalEnv.properties file by following the directions listed in Updating the JDK Location in an Existing Oracle Home .

To make the scripts and files in your Domain home directory point to the newer version of the JDK, you can follow one of the following approaches:

- Specify the path to the newer JDK on the Domain Mode and JDK screen while running the Configuration Wizard.

  For example, consider that you installed Oracle Fusion Middleware Infrastructure with the JDK version 8u191. So, while configuring the WebLogic domain with the Configuration Assistant, you can select the path to the newer JDK on the Domain Mode and JDK screen of the Configuration Wizard. Example: `/scratch/jdk/jdk17.0.12`.

- Manually locate the files that have references to the JDK using `grep` (Linux) or `findstr` (WINDOWS) commands and update each reference.

  See Updating the JDK Location in an Existing Oracle Home .

> **Note:**
>
> If you install the newer version of the JDK in the same location as the existing JDK by overwriting the files, then you don't need to take any action.

Updating the JDK Location in an Existing Oracle Home

The `getProperty.sh|cmd` script displays the value of a variable, such as JAVA_HOME, from the .globalEnv.properties file. The `setProperty.sh|cmd` script is used to set the value of variables, such as OLD_JAVA_HOME or JAVA_HOME that contain the locations of old and new JDKs in the .globalEnv.properties file.

The `getProperty.sh|cmd` and `setProperty.sh|cmd` scripts are located in the following location:

(Linux) *ORACLE_HOME*`/oui/bin`

(Windows) *ORACLE_HOME*`\oui\bin`

Where, *ORACLE_HOME* is the directory that contains the products using the current version of the JDK, such as jdk17.0.12.

To update the JDK location in the .globalEnv.properties file:

1. Use the `getProperty.sh|cmd` script to display the path of the current JDK from the JAVA_HOME variable. For example:

   (Linux) *ORACLE_HOME*`/oui/bin/getProperty.sh JAVA_HOME`

   (Windows) *ORACLE_HOME*`\oui\bin\getProperty.cmd JAVA_HOME`

   ```
   echo JAVA_HOME
   ```

   Where JAVA_HOME is the variable in the .globalEnv.properties file that contains the location of the JDK.

2. Back up the path of the current JDK to another variable such as OLD_JAVA_HOME in the .globalEnv.properties file by entering the following commands:

   (Linux) *ORACLE_HOME*`/oui/bin/setProperty.sh -name OLD_JAVA_HOME -value` *`specify_the_path_of_current_JDK`*

   (Windows) *ORACLE_HOME*`\oui\bin\setProperty.cmd -name OLD_JAVA_HOME -value` *`specify_the_path_of_current_JDK`*

   This command creates a new variable called OLD_JAVA_HOME in the .globalEnv.properties file, with a value that you have specified.

3. Set the new location of the JDK in the JAVA_HOME variable of the .globalEnv.properties file, by entering the following commands:

   (Linux) *ORACLE_HOME*`/oui/bin/setProperty.sh -name JAVA_HOME -value` *`specify_the_location_of_new_JDK`*

   (Windows) *ORACLE_HOME*`\oui\bin\setProperty.cmd -name JAVA_HOME -value` *`specify_the_location_of_new_JDK`*

   After you run this command, the JAVA_HOME variable in the .globalEnv.properties file now contains the path to the new JDK, such as jdk17.0.12.

Updating the JDK Location in an Existing Domain Home

You must search the references to the current JDK, for example 1.8.0_191 manually, and replace those instances with the location of the new JDK.

You can use the `grep` or `findstr` commands to search for the JDK-related references.

You'll likely be required to update the location of JDK in the following three files:

(Linux) *DOMAIN_HOME*`/bin/setNMJavaHome.sh`

(Windows) *DOMAIN_HOME*`\bin\setNMJavaHome.cmd`

(Linux) *DOMAIN_HOME*`/nodemanager/nodemanager.properties`

(Windows)*DOMAIN_HOME*`\nodemanager\nodemanager.properties`

(Linux) Start `bash` and then run *DOMAIN_HOME*`/bin>source setDomainEnv.sh`

(Windows)*DOMAIN_HOME*`\bin\setDomainEnv.cmd`